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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,304	07/05/2001	Oskar A. Haas	MBP-1-CIP	3525
37923	7590	04/07/2004	EXAMINER	
ROBERTSON & MULLINAX, LLC PO BOX 26029 GREENVILLE, SC 29616-1029			LU, FRANK WEI MIN	
			ART UNIT	PAPER NUMBER
			1634	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

8/17

Office Action Summary

Application No.

09/899,304

Applicant(s)

HAAS ET AL.

Examiner

Frank W Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 18,20 and 31-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19 and 21 is/are rejected.
- 7) ☒ Claim(s) 22-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/432,671.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10/2001. 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of species DNA (claim 14) and a species of a hybridization reaction (claim 19) filed on August 18, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. The examiner notes that applicant does not response to the office communication mailed on October 24, 2002 in the RESPONSE TO RESTRICTION REQUIREMENT AND PRELIMINARY AMENDMENT filed on August 18, 2003. In instead, applicant just signs his RESPONSE TO RESTRICTION REQUIREMENT AND PRELIMINARY AMENDMENT. In the office communication mailed on October 24, 2002, the examiner indicated that applicant did not sign RESPONSE TO RESTRICTION REQUIREMENT AND PRELIMINARY AMENDMENT filed on July 31, 2002. Furthermore, the amendment filed on August 18, 2003 or July 31, 2002 can not considered as PRELIMINARY AMENDMENT since the amendment was filed after the office has mailed restriction requirement.

3. The examiner notes that applicant does not elect the restriction group but argues that Groups I, II, and III should be examined together since applicant has amended claims 1, 21, and 31.

After reviewing applicant's amendment filed on August 18, 2003, the examiner agrees to examine Groups I and II together. However, above argument has not been found persuasive toward the withdrawal of all restriction requirement nor persuasive toward the relaxation of same such that Groups I, II, and III will be examined together. In view of amended claims 1, 21, and

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31, there is a search burden on the examiner to search Groups I, II, and III together. For example, a search for micropipette (see claim 1 or 21), which is required for Groups I and II, is not required for Group III. While a search for a marking device, which is required for Group III, is not required for Groups I and II. Therefore, the requirement for Group III is still deemed proper and is made FINAL. Claims 1-17, 19, and 21-30 will be examined.

Specification

4. The disclosure is objected to because of the following informality: applicant indicates that this application is a Continuation-in-part of US Application 09/432,671 in the first sentence of the specification. However, it is unclear whether applicant claims priority for US Application 09/432,671 or not. Furthermore, since US Application 09/432,671 is abandoned, applicant is required to update information for this application.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-17 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 recites the limitation "the reagent" in the claim. There is insufficient antecedent basis for this limitation in the claim because there is no word "reagent" in steps (a) to (d) of claim 1. Please clarify.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Clams 1, 2, 4, 5, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Orthman (US Patent No. 6,358,749, priority date: December 2, 1997).

Orthman teaches automated system for chromosome microdissection and method of using same.

Regarding claims 1, 2, and 4, Orthman teaches a method for micromanipulating a biologic material, comprising: a) positioning a biologic material on a microscope slide; b) positioning the biologic material on said slide at a desired point beneath a microscope objective, said microscope having a sub-stage capable of rotation about an optical path of said microscope; c) rotating said sub-stage to a desired orientation; d) initiating movement of an automatic micro-manipulation device to manipulate desired portions of said biologic material; e) using said micromanipulation device, moving said desired portions of said biologic material to a receptacle; and f) depositing said desired portions of said biologic material into said receptacle; g)

calibrating said automatic micromanipulation device by determining the precise position of a first micro-tool tip and recording information relating to the spatial position of said first micro-tool tip as said micro-tool tip is moved to a desired point beneath a microscope objective, wherein said step of determining comprises positioning said micro-tool tip in the field of view of two CCD cameras and recording a zero position of said micro-tool tip (see claim 1 in columns 17 and 18). Since Orthman teaches positioning a biologic material (ie., mitotic cells) on a microscope slide and positioning the biologic material on said slide at a desired point beneath a microscope objective, said microscope having a sub-stage capable of rotation about an optical path of said microscope (see claim 1 in columns 17 and 18 and column 12, lines 50-67), Orthman discloses localizing immobilized biological material selected from the group consisting of cells, cell parts, and chromosomes onto a support slide and placing the support slide having the immobilized biological material onto an optical scanning device as recited in steps (a) and (b) of claim 1 wherein the optical scanning device is a microscope as recited in claim 2. Since Orthman teaches initiating movement of an automatic micro-manipulation device to manipulate desired portions of said biologic material and calibrating said automatic micromanipulation device by determining the precise position of a first micro-tool tip (ie., micropipette) and recording information relating to the spatial position of said first micro-tool tip as said micro-tool tip is moved to a desired point beneath a microscope objective, further comprising using said information to coordinate the movement of a second micro-tool to a desired point beneath said microscope objective (see claim 1 in columns 17 and 18 and column 5, lines 45-67), Orthman discloses recording electronically the position of an object of interest of the immobilized biological material (ie., desired portions of said biologic material) with respect to the optical

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scanning device (ie., microscope) and automatically positioning a micropipette (ie., micro-tool) over the position of the object of interest recorded in step (c) as recited in steps (c) and (d) of claim 1. Since Orthman teaches to deliver reagents in nanoliter volumes to microdrops on a microscope slide with a biological material (see column 6, lines 34-67 and column 7, lines 1-31), Orthman discloses applying the reagent onto the object of interest (ie., microdrops) as recited in step (e) of claim 1 wherein the reagent is in a localized area substantially limited to the position of the object of interest (ie., microdrops) as recited in claim 4.

Regarding claim 5, since Orthman teaches to deliver reagents in nanoliter volumes to microdrops on a microscope slide with a biological material using a capillary micropipette (see column 6, lines 34-67 and column 7, lines 1-31) and the capillary micropipette is used with desirable nanoliter volumes for delivering micro-quantities of reagent under the microscope (see column 5, last paragraph), Orthman discloses that the step of applying the reagent further includes the use of an automated pipette for dispensing a pre-selected volume of the reagent (ie., desirable nanoliter volumes taught by Orthman) as recited in claim 5.

Regarding claim 21, since Orthman teaches positioning a biologic material (ie., mitotic cells) on a microscope slide and positioning the biologic material on said slide at a desired point beneath a microscope objective, said microscope having a sub-stage capable of rotation about an optical path of said microscope (see claim 1 in columns 17 and 18 and column 12, lines 50-67), Orthman discloses providing biological material selected from the group consisting of tissue, cells, cell pads, and chromosomes, said biological material immobilized onto a support slide and placing the support slide having the immobilized biological material onto an automated optical

scanning device as recited in steps (a) and (b) of claim 21. Since Orthman teaches initiating movement of an automatic micro-manipulation device to manipulate desired portions of said biologic material and calibrating said automatic micromanipulation device by determining the precise position of a first micro-tool tip (ie., micropipette) and recording information relating to the spatial position of said first micro-tool tip as said micro-tool tip is moved to a desired point beneath a microscope objective, further comprising using said information to coordinate the movement of a second micro-tool to a desired point beneath said microscope objective (see claim 1 in columns 17 and 18 and column 5, lines 45-67), Orthman discloses automatically detecting at least one biological object of interest (ie., desired portions of said biologic material) and recording the position of the at least one biological object of interest with respect to the slide and automatically positioning a micropipette (ie., micro-tool) over the position of said at least one biological object of interest (ie., desired portions of said biologic material) recorded during step (c) as recited in steps (c) and (d) of claim 21. Since Orthman teaches to deliver reagents in nanoliter volumes to microdrops on a microscope slide with a biological material (see column 6, lines 34-67 and column 7, lines 1-31), Orthman discloses applying the reagent onto the object of interest (ie., microdrops) as recited in step (e) of claim 21.

Therefore, Orthman teaches all limitations recited in claims 1, 2, 4, 5, and 21.

Conclusion

10. No claim is allowed.

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11. Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to Group 1600 via the PTO Fax Center located in Crystal Mall 1. The faxing of such papers must conform with the notices published in the Official Gazette, 1096 OG 30 (November 15, 1988), 1156 OG 61 (November 16, 1993), and 1157 OG 94 (December 28, 1993)(See 37 CAR § 1.6(d)). The CM Fax Center number is either (703) 308-4242 or (703)305-3014.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Lu, Ph.D., whose telephone number is (571)272-0746. The examiner can normally be reached on Monday-Friday from 9 A.M. to 5 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion, can be reached on (571)272-0782.

Any inquiry of a general nature or relating to the status of this application should be directed to the Chemical Matrix receptionist whose telephone number is (703) 308-0196.

Frank Lu
PSA
April 5, 2004



FRANK LU
PATENT EXAMINER